Work Ord October-23-12		229		*922		•		Page 1			
Item ID: Revision ID: Item Name:	647.1913 Tee		A	Accept	*N900	040	100)*	Setup Sta	IA	S1*
Start Date: Required Date Reference:	23/10/2012 e: 06/11/2012	Start Qty: 6.00 Req'd Qty: 6.00	10.09° *6* *6*		Cust Item II Customer:	D:				IN	5/
Approvals:	Process Pla	in: MLJ	Date: 12-10-24	Tooling:	Da	te:	-]	Run Sta	1/1	R1*
	QC:		_ Date:	SPC (Y/N):	Da	te:			Sto	^{'p} *N	R2*
Sequence ID/ Work Center	ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Rev	ision Nbr	-						•		
647.7300				1							
*110 *110* Mill Conv		HAAS CNC VERTICA	L MACHINING #1	0.00	512-12-12			10			
Conventional Milli	ng Machine	Memo 1-Machine DWG REV	per DWG Mani	1000							
		2- deburr a	nd break all sharp edges		·						
120 *120*		QC2- Inspect parts off r	nachine FAI/FAIB	0.00	12-12-1	Ц		· (O			
QC Quality Control		Memo		0.00	, , , , ,	,		_/		and the same of th	

											DQA:	Date	e:	· · · · · · · · · · · · · · · · · · ·	
NCR: Yes / No					WORK ORDER NON-CONFORMANCE / UPDATE QA Closed: Date:									ā.·· •	
										•	QA Closea:	Date	e:		
Work Orde	ır.				DISPOSITION		AGAINST DEPARTMENT/PROCESS								
WOIK OIGE					Rework	1	Skid-tube Crosstube				Water Jet			Engineering	
Part N	lo.				Scrap	1	1	Machining	Small Fab		Prod. Eng. Coor.			Quality	
	-				Use-as-is	1		noforming	Finishing	_		e/Packaging	\exists	Other	
NCR N	lo.				Work Order Update Large Fab Composite				—	•	Supplier	一			
Root				Descri	ption of work order update	Ir	nitial	Act	tion .		Sign &				
Cause	Date	Step	Qty	or Non-conformance Chief Eng Description					Date	Verification	1	QC Inspector			
Doc/Data	/Data									ļ					
quip/Tooling														j	
Operator															
//aterial															
etup															
Other															
rocess		_													
upplier															
raining							!								
Jnapproved															
					FA	AUL	T CATE	GORY							
Landing Gear General			General												
	Bending				Bend		Grain				Ovalized		F	Pressure/Forced	
[Centre N	lot Conce	ntric to	o/s	BOM/Route	Hardware Over			Over/Under	tolerance	ו	Temperature/Cure			
Cracks		Broken/Damaged		Inspection Incomplete				Part Incorrect			Weld				

	<u>~</u>					
	Bending	Bend	Grain		Ovalized	Pressure/Forced
	Centre Not Concentric to O/S	BOM/Route	Hardware		Over/Under tolerance	Temperature/Cure
	Cracks	Broken/Damaged	Inspection Incomplete		Part Incorrect	Weld
	Crushed/Crimped.	Burrs	Instructions Incomplete/Unclear		Part Lost/Missing	Wrong Stock Pulled
	Cuffs	Contamination	Maintenance .		Part Moved	 _
	Heat Treat	Countersink	Mislabeled		Positioned Wrong	 _
. [Inspection Strip in Tube	Cut Too Short	Misread	L	Power Loss/Surge	Other
	Ripples in Bend	Drill Holes	Offset			
	Torque Waves in Extrusion	Drawing	Out of Calibration			
	Turning Sequence	Finish	Out of Sequence			
Γ	Wave/Twist in Tube	Folio	Outside Dimensions			

150

Receive & Inspect for Damage & Mat'l Certs

0.00

150 Packaging

Packaging

Memo

0.00

											DQA:	Date:	
NCR:	Yes	/ No				WORK ORDER NON-O	100	NFORM	MANCE / UPI	DATE			-
									·		QA Closed:	Date:	· · · · · · · · · · · · · · · · · · ·
Work Ord	or.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	•
Part No						Rework Scrap Use-as-is Work Order Update Skid-tube Crosstube Machining Thermoforming Large Fab Composite			4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other		
Root	Root Des					ption of work order update		Initial Action			Sign &		
Cause		Date	Step	1				nief Eng		iption	Date	Verification	QC Inspector
Doc/Data	П						t						
Equip/Tooling													
Operator													
Material													
Setup													
Other													
Process												[]	
Supplier						•							
Training		•					1						
Unapproved							<u> </u>						
						F	AUL	T CATE	GORY				
Landi	ng G	iear			_	General		,		_		 	7
	Ш	Bending				Bend		Grain			Ovalized	_	Pressure/Forced
	Centre Not Concentric to O/S BOM/Route			BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure		
	Cracks Broken/Damaged				Inspecti	on Incomplete		Part Incorre	ct	Weld			
	Crushed/CrimpedBurrs				Instruct	ions Incomplete/U	Jnclear	Part Lost/M	issing	Wrong Stock Pulled			
		Cuffs Contamination			Maintenance				Part Moved				
,	Heat Treat Countersink			Countersink	Mislabeled				Positioned \	Wrong	-		
,	Inspection Strip in Tube Cut Too St			Cut Too Short	Misread				Power Loss/	'Surge	Other		

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Order ID 92229 October-23-12 2:40:39 PM				*922				Page 3		
Item ID: Revision ID: Item Name:	647.1913 Tee		The shade set Tell (1995) as an	Accept	*N9000	14010)* s	etup S S		NS1* NS2*
Start Date: 23/10/2012 Required Date: 06/11/2012 Reference:		Start Qty: 6.00 Req'd Qty: 6.00	*6* *6*		Cust Item ID: Customer:	:				
Approvals:	•	n:	Date:	Tooling: SPC (Y/N):	Date Date		R		tart * Stop *	NR1* NR2*
Sequence ID/ Work Center ID)	Operation Description		Set Up/ Run Hours	Tool ID	Tool # Plan Code	Accept Qty	Reject Qty		t Insp.
*155 *155* QC Quality Control		QC5- Inspect part compl Memo	eteness to step on W/O	0.00 (SAS)	13/04/06	÷	(10)		.	
160		Spray Painting per QSI0	05 4.2	0.00						
160 SprayPaint Spray Painting		Memo PRIME AS	PER DWG, SEE NOTE #2	0.00			_10_	¢		13-3-2
		CARDINAL	4860-50 PRIMER BATC	H: 124204						

0.00

0.00

170

170

Quality Control

QC14- Inspect Spray Paint

Memo

									DQA:	Date:	
NCR:	Yes / No)			WORK ORDER NON-C	ONFO	RMANCE / U	PDATE			ü
									QA Closed:	Date:	
18/ a l - O d					DISPOSITION		· '	AGAINST DI	PARTMENT	/PROCESS	
Work Ord	er:				Rework	ı	Skid-tube	Crosstube	7	Water Jet	1 Engineering
Part I	No				Scrap		Machining	Small Fab	- Pro	⊢	Engineering Quality
raiti	v o				Use-as-is Thermoformin			├ ─			
NCR No.				1 1 1			Composite	1 1100,310	Supplier	Other	
				·			_1		, —		
Root				Descri	ption of work order update	Initia	P	Action	Sign &		
Cause	Date	Step	Qty	(or Non-conformance	Chief E	ng De:	scription	Date	Verification	QC Inspector
Doc/Data											
Equip/Tooling	Ш										
Operator		f									
Material	Ш				•						
Setup	Ш					.3	. '				
Other						, ,					
Process											
Supplier											
Training		1									
Unapproved											
					F	AULT CA	regory				
Landi	ng Gear				General			-	_		7
	Bendin	g			Bend	Grai	า	<u></u>	Ovalized		Pressure/Forced
	Centre Not Concentric to O/S BOM/Route			•	Hard	ware		Over/Under	tolerance	Temperature/Cure	
	Cracks				Broken/Damaged	Inspection Incomplete			Part Incorre	ct	Weld
	Crushed/Crimped. Burrs				Burrs	Instructions Incomplete/Unclear Part Lost			Part Lost/M	issing	Wrong Stock Pulled
	Cuffs Contaminati			Contamination	l Mair	itenance		Part Moved			

Mislabeled

Out of Calibration

Out of Sequence

Outside Dimensions

Misread

Offset

Positioned Wrong

Power Loss/Surge

Other

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Quality Control

Page 4

October-23-12 2:40:39 PM Item ID: 647.1913 Accept Setup Start **Revision ID:** Item Name: Tee Start Qty: 6.00 **Start Date:** 23/10/2012 **Cust Item ID: Required Date:** 06/11/2012 Reg'd Qty: 6.00 **Customer:** Reference: Run Approvals: Process Plan: Date: **Tooling:** Date: Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. **Work Center ID** Description **Run Hours** Code Qty Number Stamp 180 Identify as per dwg & Stock Location. 0.00 *180* Packaging 0.00 Memo ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV*** Packaging 190 QC21- Final Inspection - Work Order Release 0.00 *190* QC 0.00 Memo

N 13-04-4

	DQA:	Date:	*	
DER NON-CONFORMANCE / UPDATE			 ,	

NCR: Yes / No	WORK ORDER NON-C
---------------	------------------

									QA Closed:	Date:			
Work Orde	ır:				DISPOSITION		AGAINST DEPARTMENT/PROCESS						
Part N		-			Rework Scrap Use-as-is	Ther	Skid-tube Machining moforming	Crosstube Small Fab Finishing		Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other		
NCR N	10				Work Order Update]	Large Fab	Composite		Supplier	اـــا		
Root				Descri	ption of work order update	Initial	Act	tion	Sign &	-			
Cause	Date	Step	Qty	(or Non-conformance	Chief Eng	Chief Eng Description			Verification	QC Inspector		
Doc/Data											,		
Equip/Tooling		1											
Operator											[
Material						1							
Setup													
Other													
Process													
Supplier													
Training													
Unapproved													
					F	AULT CATE	GORY		·				
Landin	g Gear				General						_		
	Bending				Bend	Grain			Ovalized		Pressure/Forced		
	Centre No	ot Concer	ntric to C)/S	BOM/Route	Hardw	are		Over/Under	tolerance	Temperature/Cure		
	Cracks				Broken/Damaged	Inspec	tion Incomplete		Part Incorred	ct	Weld		
	Crushed/	Crimped.			Burrs	Instruc	tions Incomplete/l	Jnclear	Part Lost/Mi	ssing	Wrong Stock Pulled		
	Cuffs				Contamination	Maint	enance		Part Moved				
	Heat Trea	it			Countersink	Mislab	eled		Positioned V	Vrong	_		
	Inspection	n Strip in	Tube		Cut Too Short	Misrea	d		Power Loss/	Surge	Other		
	Ripples in	Bend			Drill Holes	Offset							
	Torque W	aves in E	xtrusion		Drawing	Out of	Calibration						
[Turning S	equence			Finish	Out of	Sequence						
		Folio	Outsid	e Dimensions									

Picklist Print

October-23-12 2:40:42 PM

Work Order ID: 92229

92229

Parent Item:

647.1913

647 1913

Parent Item Name: Tee

Start Date: 23/10/2012

Required Date: 06/11/2012

Page 1

Start Qty: 6.00

**

Required Qty: 6.00

Comments:

IPP REV:A NEW ISSUE 12-10-22 JLM VERIFIED:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status	
647.1913E		Manufactured	No				f	0.0000		7.894737				

*647 1913F*J

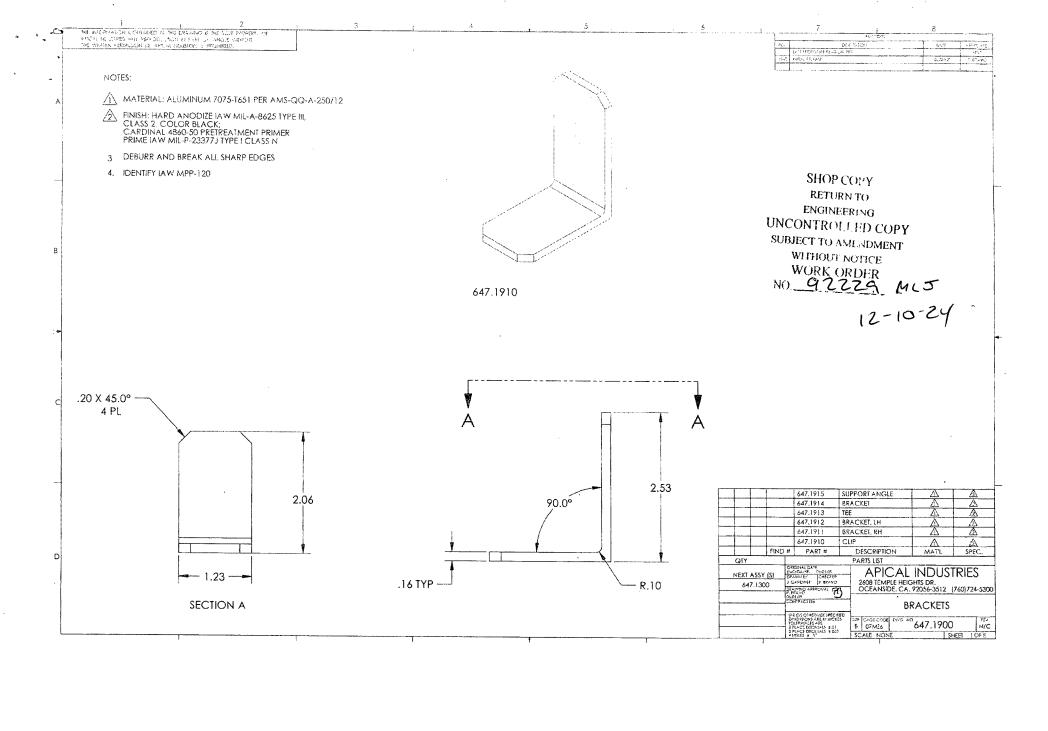
91664

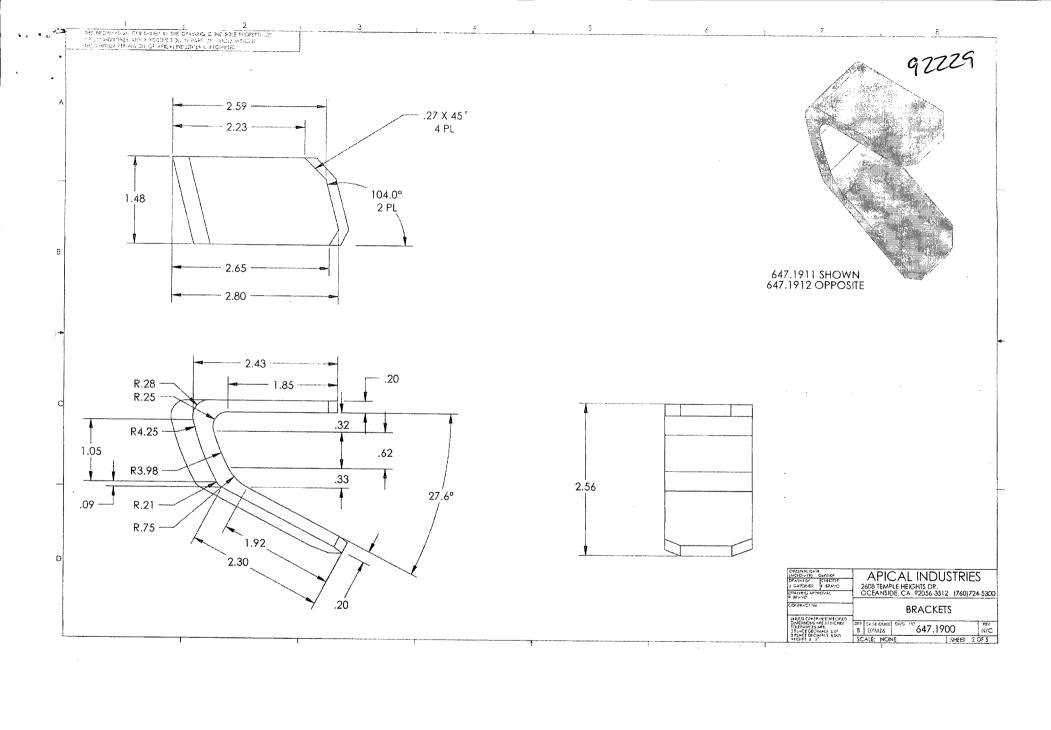
DQA:	Date:	

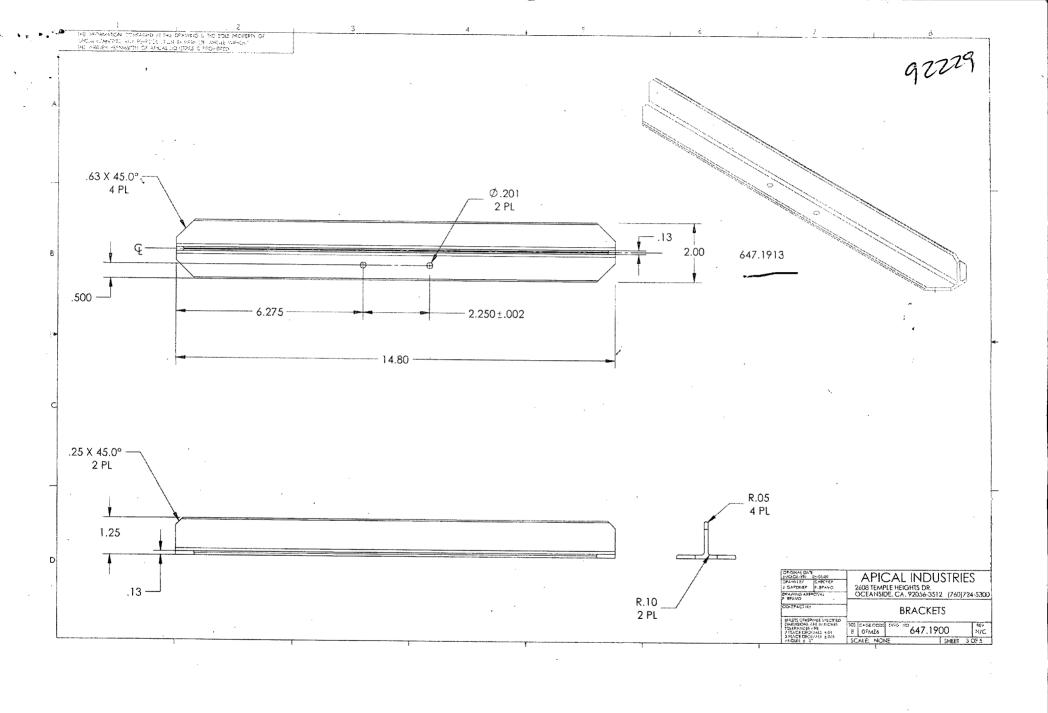
NCR: Yes / No

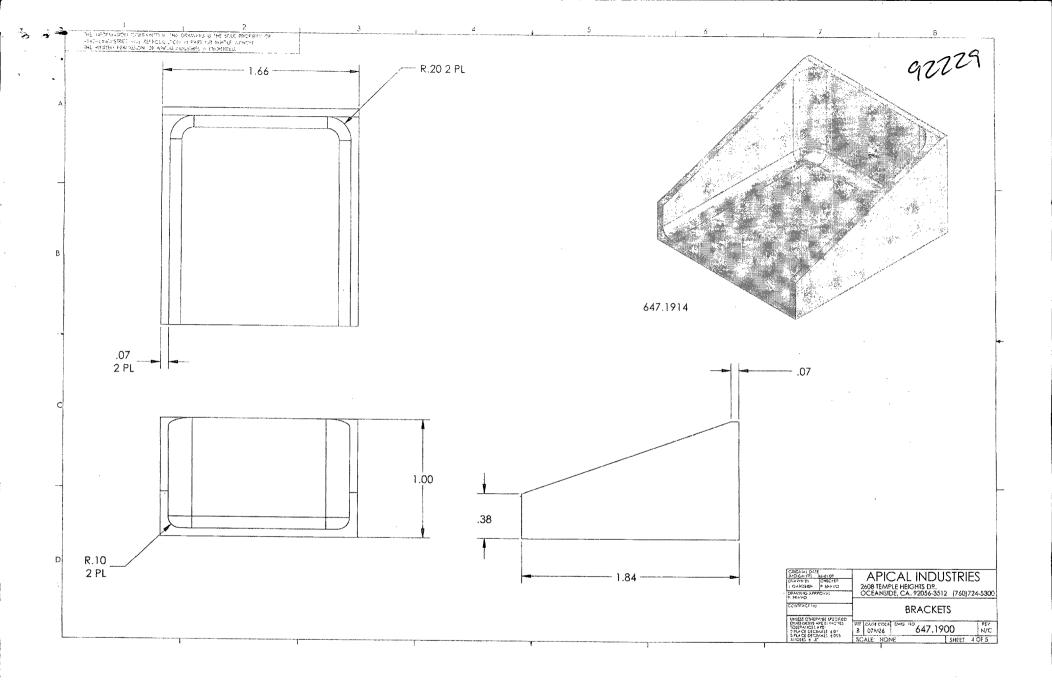
WORK ORDER NON-CONFORMANCE / UPDATE

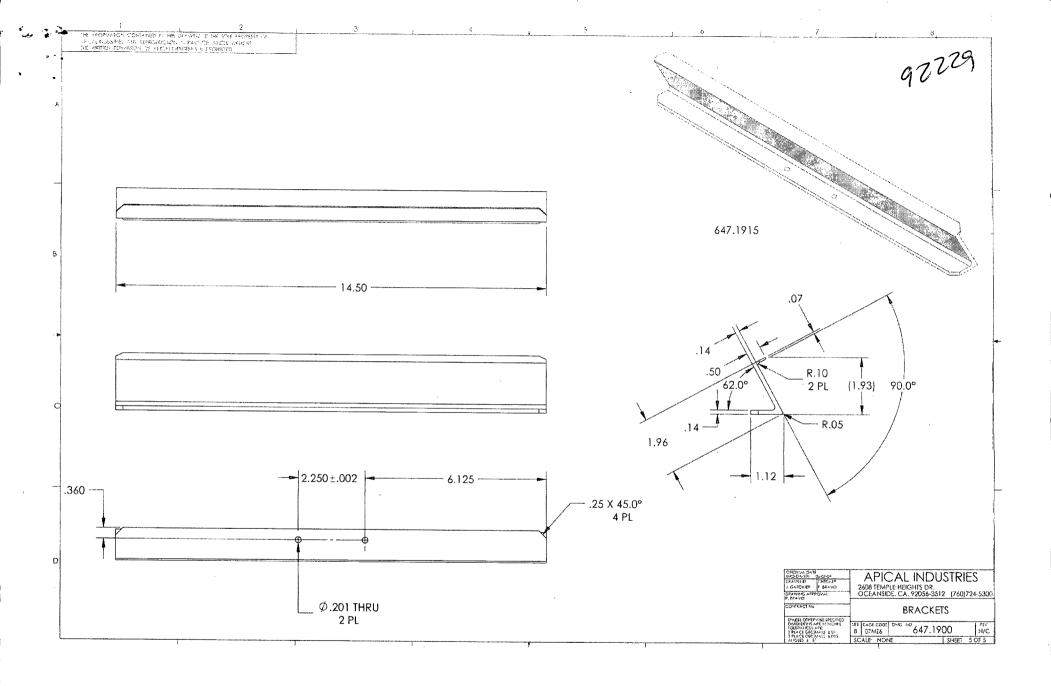
									QA Closed:	Date	2:	_			
Work Order					DISPOSITION		AGAINST DEPARTMENT/PROCESS								
Part No	o				Rework Scrap Use-as-is Work Order Update	Machining Sma	osstube Water Jet Engineering nall Fab Prod. Eng. Coor. Quality inishing Rec/Store/Packaging Other Supplier								
Root				Descri	ption of work order update	Initial	Action		Sign &						
Cause	Date	Step	Qty	(or Non-conformance	Chief Eng	Description		Date	Verification	QC Inspector				
occ/Data quip/Tooling Operator Material Setup Other Process Supplier Training		•				-				8 € -					
napproved		<u> </u>	<u> </u>			AULT CATE	GORY			. ,		-			
Landing	z Gear				General	HOLI CAIL	COM		<u>" '</u>			-			
	Bending Centre Not Concentric to O/S Cracks Crushed/Crimped. Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion Turning Sequence				Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing Finish	Instruct Mainte Mislabe Misread Offset Out of (ion Incomplete ions Incomplete/Unclear enance eled	_	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned W Power Loss/	ct ssing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other				
<u> </u>	Wave/Twist in Tube			Folio	_	Dimensions									











DART AEROSPACE LTD	Work Order:	92229	
Description: TEE Bracker	Part Number:	647.1913	
Inspection Dwg: 647.1900 Rev: NC		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept,	Reject	Method of Inspection	Comments
14,80	生:0/0	14.805				
6.275	±.005		-		·	
2.250	土.002	2.251			RAZE	Vem
2.00	2010	1.999			2 (
,500	1.005	,502			11	
,25×450	土010/20	,26×450			C)	
.63 ×450	士010/20	,50Z ,26xy5° ,64x45°			" (VIN
	·					
8						
	3 .					
	,					
					•	

Measured by:	Audited by:	Preliminary Approval:		
Date:	Date: 12.12.18	Date:		

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	



A.T.G. Industries Inc. 731, rue Industrielle Rd. PLATING DEPARTMENT Rockland, On K4K 1T2 Canada

Ph: (613) 446-4544 Fax: (613) 446-4556

Pack List

Number: 62213

Date: 13-Feb-13

То

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 Canada Ship To

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7

Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

		PII. (013-632-5200	Fax: 613-632-1165	
Terms		Ship Via		***************************************	
					
Quantity	Description				
1	Part: ASST		Rev:		
lot					
	5 PCS D3299-1 12 PCS D3299-5				*
,	8 PCS D3299-7			•	
	16 PCS 647.1710 4 PCS 647.1711				
	5 PCS 647 1913				
(10 PCS 647.1913 0 13 64	doc			
	12 PCS 646.3610				
	HARD ANODIZE BLACK				
	MIL-A-8625 TYPE III CLASS 2		1		
	32 PCS 647.2511				
	PASSIVATE PER QQ-P-35 Job: 20130091	PO: PO19017	Line:		
			LIIIC.		
	Certificate of Cor	nformance			
	A.T.G. Industries certifies that all items	in this shipment are in conf	formance		
	with all requirements, specifications and	drawings referenced in the	e purchase order.		
	ISO 9001 : 2008 REG / ATG SALES-2010 TE	GISTERED			
	12/2/12	ENVIO AFFLI			
	DATE: 13/ 4// 3				
	CEPTIFIED CLOSE W	•	a.		
	CERTIFIED SIGNATURE :		•		
	RECEIVER SIGNATURE :			•	
	TEGETVER GIGITATORE :				
	·			•	
	·				
-			•		
	i				l l